



# airMAX Sector

5 GHz 2x2 MIMO BaseStation Sector Antenna Model: AM-5G20-90

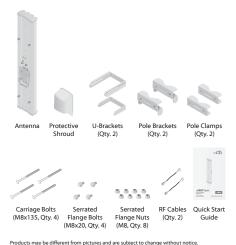


QUICK START GUIDE

#### Introduction

Thank you for purchasing the Ubiquiti Networks™ airMAX™ 5 GHz 2x2 MIMO BaseStation Sector Antenna. This Quick Start Guide is designed to guide you through the installation of the antenna. This Quick Start Guide also includes the warranty terms and is for use with the airMAX Sector Antenna, model AM-5G20-90.

## **Package Contents**



Froducts may be different from pictures and are subject to change without notice.

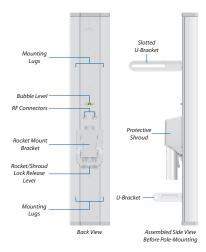
TERMS OF USE: Ubiquitir adio devices must be professionally installed. Shielded Ethernet cable and earth grounding must be used as conditions of product warranty. TOUGHCable is designed for outdoor installations. It is the customer's responsibility to follow local country regulations, including operation within legal frequency channels, output power, and Dynamic Frequency Selection (IPS) requirements.

## **Installation Requirements**

- · RocketM5 or RocketM5 GPS (sold separately)
- 12 mm and 13 mm wrenches
- Shielded Category 5 (or above) cabling should be used for all wired Ethernet connections and should be grounded through the AC ground of the PoE.

We recommend that you protect your networks from the most brutal environments and devastating ESD attacks with industrial-grade shielded Ethernet cable from Ubiquiti Networks. For more details, visit www.ubnt.com/toughcable

### Hardware Overview



## Hardware Installation

 Attach the RF Cables to the connectors labeled Chain 0 and Chain 1 on the RocketM.



- 2. Attach the RocketM to the Rocket Mount Bracket.
  - a. Align the mounting tabs on the back of the RocketM with the four mounting slots on the bracket.
  - b. Slide the RocketM down until it locks into place.



3. Connect the other ends of the RF Cables to the RF Connectors on the antenna.



4. Slide the Protective Shroud down over the RocketM until it locks onto the Rocket Mount Bracket.





Note: If you have trouble locking the shroud into place, try adjusting the placement of the RF Cables.

- 5. Attach the *U-Brackets* to the antenna:
  - a. Secure the Slotted U-Bracket to the upper Mounting Lugs of the antenna using two Serrated Flange Nuts.
  - b. Secure the other *U-Bracket* to the lower *Mounting Lugs* of the antenna using two *Serrated Flange Nuts*.



Note: Orient both *U-Brackets* as shown below.



6. Insert two Carriage Bolts into each Pole Bracket.



7. Attach each *Pole Bracket* to each *U-Bracket* using two *Serrated Flange Bolts*. Hand-tighten only.



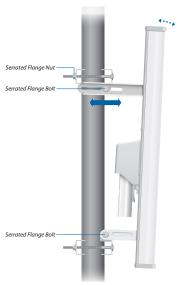
8. To mount the antenna to the pole, slide a *Pole Clamp* over each pair of *Carriage Bolts*. Secure each *Pole Clamp* with two *Serrated Flange Nuts*.



Note: The mounting assembly can accommodate a  $\emptyset$  1.5" - 3.0" pole.



- The antenna has an electrical downtilt of 2°. To further adjust the elevation angle:
  - Loosen the four Serrated Flange Bolts on the U-Brackets and the two Serrated Flange Nuts on the upper Pole Clamp.
  - b. Slide the antenna to the desired tilt. (The brackets may slide along the pole, depending on the angle of the elevation tilt.)
  - Tighten all bolts and nuts to approximately 25 N-m (18 lb-ft) or less to avoid deforming the pole.



## Specifications

AM-5G20-90	
Dimensions	700 x 135 x 70 mm
Weight	5.9 kg (Mount Included)
Frequency	5.15 - 5.85 GHz
Gain	19.4 - 20.3 dBi
HPOL Beamwidth	91° (6 dB)
VPOL Beamwidth	85° (6 dB)
Elevation Beamwidth	4°
Electrical Downtilt	2°
Max. VSWR	1.5:1
Wind Loading	41 lbf @ 125 mph
Wind Survivability	125 mph
Polarization	Dual Linear
Cross-Pol Isolation	28 dB Min.
ETSI Specification	EN 302 326 DN2
Mounting	Universal Pole Mount, RocketM Bracket, and Weatherproof RF Jumpers Included

## Safety Notices

- Read, follow, and keep these instructions.
- 2. Heed all warnings.
- 3. Only use attachments/accessories specified by the manufacturer.



WARNING: Do not use this product in location that can be submerged by water.



MARNING: Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

## **Electrical Safety Information**

- Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
- There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.

## **Limited Warranty**

UBIQUITI NETWORKS, Inc ("UBIQUITI NETWORKS") warrants that the product(s) furnished hereunder (the "Product(s)") shall be free from defects in material and workmanship for a period of one (1) year from the date of shipment by UBIQUITI NETWORKS under normal use and operation. UBIQUITI NETWORKS' sole and exclusive obligation and liability under the foregoing warranty shall be for UBIQUITI NETWORKS, at its discretion, to repair or replace any Product that fails to conform to the above warranty during the above warranty period. The expense of removal and reinstallation of any Product is not included in this warranty. The warranty period of any repaired or replaced Product shall not extend beyond its original term.

### **Warranty Conditions**

The above warranty does not apply if the Product:

- has been modified and/or altered, or an addition made thereto, except by Ubiquiti Networks, or Ubiquiti Networks' authorized representatives, or as approved by Ubiquiti Networks in writing;
- (II) has been painted, rebranded or physically modified in any way;
- (III) has been damaged due to errors or defects in cabling;
- (IV) has been subjected to misuse, abuse, negligence, abnormal physical, electromagnetic or electrical stress, including lightning strikes, or accident;
- has been damaged or impaired as a result of using third party firmware; or
- (VI) has no original Ubiquiti MAC label, or is missing any other original Ubiquiti label(s).
- (VII) has not been received by Ubiquiti within 30 days of issuance of the RMA.

In addition, the above warranty shall apply only if: the product has been properly installed and used at all times in accordance, and in all material respects, with the applicable Product documentation; all Ethernet cabling runs use CATS (or above), and for outdoor installations, shielded Ethernet cabling is used, and for indoor installations, indoor cabling requirements are followed.

#### Returns

No Products will be accepted for replacement or repair without obtaining a Return Materials Authorization (RMA) number from UBIQUITI NETWORKS during the warranty period, and the Products being received at UBIQUITI NETWORKS' facility freight prepaid in accordance with the RMA process of UBIQUITI NETWORKS. Products returned without an RMA number will not be processed and will be returned freight collect or subject to disposal. Information on the RMA process and obtaining an RMA number can be found at www.ubnt.com/support/warranty.

#### Disclaimer

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## Limitation of Liability

EXCEPT TO THE EXTENT PROHIBITED BY LOCAL LAW, IN NO EVENT WILL UBIQUITI OR ITS SUBSIDIARIES, AFFILIATES OR SUPPLIERS BE LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES (INCLUDING LOST PROFIT, LOST DATA, OR DOWNTIME COSTS), ARISING OUT OF THE USE, INABILITY TO USE, OR THE RESULTS OF USE OF THE PRODUCT, WHETHER BASED IN WARRANTY, CONTRACT, TORT OR OTHER LEGAL THEORY, AND WHETHER OR NOT ADVISED OF THE POSSIBILITY OF SUICH DAMAGES.

#### Note

Some countries, states and provinces do not allow exclusions of implied warranties or conditions, so the above exclusion may not apply to you. You may have other rights that vary from country to country, state to state, or province to province. Some countries, states and provinces do not allow the exclusion or limitation of liability for incidental or consequential damages, so the above limitation may not apply to you. EXCEPT TO THE EXTENT ALLOWED BY LOCAL LAW, THESE WARRANTY TERMS DO NOT EXCLUDE, RESTRICT OR MODIFY, AND ARE IN ADDITION TO, THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE LICENSE OF ANY SOFTWARE (EMBEDDED IN THE PRODUCT) TO YOU. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to any transactions regarding the sale of the Products.

## Compliance

## **RF Exposure Warning**

The antenna and transmitter must be installed to provide a separation distance from all persons and must not be located or operating in conjunction with any other antenna or transmitter. For the specific separation distance, refer to the Quick Start Guide for your RocketM device (transmitter).

L'antenne et l'émetteur doit être installé pour fournir une distance de séparation de toute les personnes et ne doit pas être situé ou opérant en conjonction avec une autre antenne ou un autre émetteur. Pour la distance spécifique de séparation, se réfèrer au Guide de démarrage rapide pour votre appareil RocketM (fémetteur).

#### **RoHS/WEEE Compliance Statement**



#### English

European Directive 2002/96/Ec requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potental negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

#### Deutsch

Die Europäische Richtlinie 2002/96/EC verlangt, dass technische Ausrüstung, die direkt am Gerät und/oder an der Verpackung mit diesem Symbol versehen ist, nicht zusammen mit unsortiertem Gemeindeabfall entsorgt werden darf. Das Symbol weist draruf hin, dass das Produkt von regulärem Haushaltmüll getrennt entsorgt werden sollte. Es liegt in Ihrer Verantwortung, dieses Gerät und andere elektrische und elektronische Geräte über die dafür zuständigen und von der Regierung oder örtlichen Behörden dazu bestimmten Sammelstellen zu entsorgen. Ordnungsgemäßes Entsorgen und Recyclen trägt dazu bei, potentielle negative Folgen für Umwelt und die menschliche Gesundheit zu vermeiden. Wenn Sie weitere informationen zur Entsorgung ihrer Altgeräte benötigen, wenden Sie sich bitte an die örtlichen Behörden oder städtischen Entsorgungsdienste oder an den Händler, bei dem Sie das Produkt erworben haben.

#### Español

La Directiva 2002/96/CE de la UE exige que los equipos que lleven este símbolo en el propio aparato y/o en su embalaje no deben eliminarse junto con otros residuos urbanos no seleccionados. El símbolo indica que el producto en cuestión debe separarse de los residuos domésticos convencionales con vistas a su eliminación. Es responsabilidad suya desechar este y cualesquiera otros aparatos eléctricos y electrónicos a través de los puntos de recogida que ponen a su disposición el gobierno y las autoridades locales. Al desechar y reciclar correctamente estos aparatos estará contribuyendo a evitar posibles consecuencias negativas para el medio ambiente y la salud de las personas. Si desea obtene información más detallada sobre la eliminación segura de su aparato usado, consulte a las autoridades locales, al servicio de recogida y eliminación de residuos de su zona o pregunte en la tienda donde adquiró el producto.

#### Français

La directive européenne 2002/96/CE exige que l'équipement sur lequel est apposé ce symbole sur le produit et/ou son emballage ne soit pas jeté avec les autres ordures ménagères. Ce symbole indique que le produit doit être éliminé dans un circuit distinct de celui pour les déchets des ménages. Il est de votre responsabilité de jeter ce matrieriel ainsi que tout autre matériel électrique ou électronique par les moyens de collecte indiqués par le gouvernement et les pouvoirs publics des collectivités territoriales. L'élimination et le recyclage en bonne et due forme ont pour but de lutter contre l'impact néfaste potentiel de ce type de produits sur l'environnement et la santé publique. Pour plus d'informations sur le mode d'élimination de votre ancien équipement, veuillez prendre contact avec les pouvoirs publics locaux, le service de traitement des déchets, ou l'endroit où vous avez achet le produit.

#### Italiano

La direttiva europea 2002/96/EC richiede che le apparecchiature contrassegnate con questo simbolo sul prodotto e/o sull'imballaggio non siano smaltite insieme ai rifluti urbani non differenziati. Il simbolo indica che questo prodotto non deve essere smaltito insieme ai normali rifluti domestici. E responsabilità del proprietario smaltire sia questi prodotti sia le altre apparecchiature elettriche ed elettroniche mediante le specifiche strutture di raccolta indicate dal governo o dagli enti pubblici locali. Il corretto smaltimento ed il riciclaggio aiuteranno a prevenire conseguenze potenzialmente negative per l'ambiente e per la salute dell'essere umano. Per ricevere informazioni più dettagliate circa lo smaltimento delle vecchie apparecchiature in Vostro possesso, Vi invitiamo a contattare gli enti pubblici di competenza, il servizio di smaltimento rifiuti o il negozio nel quale avete acquistato il prodotto.

## **Declaration of Conformity**

Českv UBIQUITI NETWORKS tímto prohla uje, e tento UBIQUITI NETWORKS [Czech] device, je ve shod se základními po adavky a dal ími p íslu n mi

ustanoveními sm rnice 1999/5/ES.

Dansk Undertegnede UBIQUITI NETWORKS erklærer herved, at følgende

udstyr UBIQUITI NETWORKS device, overholder de væsentlige krav [Danish] og øyrige relevante kray i direktiv 1999/5/EF.

Nederlands Hierbij verklaart UBIQUITI NETWORKS dat het toestel UBIQUITI NETWORKS device, in overeenstemming is met de essentiële eisen

[Dutch] en de andere relevante bepalingen van richtlijn 1999/5/EG. Bij deze verklaart UBIQUITI NETWORKS dat deze UBIQUITI NETWORKS device, voldoet aan de essentiële eisen en aan de

overige relevante begalingen van Richtlijn 1999/5/EC. Hereby, UBIQUITI NETWORKS, declares that this UBIQUITI Enalish NETWORKS device, is in compliance with the essential

requirements and other relevant provisions of Directive 1999/5/EC. Festi Käesolevaga kinnitab UBIQUITI NETWORKS seadme UBIQUITI

[Estonian] NETWORKS device, vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asiakohastele sätetele. Suomi UBIOUITI NETWORKS vakuuttaa täten että UBIOUITI NETWORKS

device, tyyppinen laite on direktiivin 1999/5/EY oleellisten [Finnish] vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Français Par la présente UBIOUITI NETWORKS déclare que l'appareil [French] UBIQUITI NETWORKS, device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Hiermit erklärt UBIOUITI NETWORKS, dass sich diese UBIOUITI Deutsch [German] NETWORKS device, in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der

Richtlinie 1999/5/EG befindet". (BMWi)

Ελληνική ΜΕΤΗΝ ΠΑΡΟΥΣΑ UBIOUITI NETWORKS ΔΗΛΩΝΕΙ ΟΤΙ UBIOUITI NETWORKS device, ΣΥΜΜΟΡΦΟΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΟΛΕΙΣ [Greek] ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΛΙΑΤΑΞΕΙΣ ΤΗΣ ΟΛΗΓΙΑΣ 1995/5/FK

Alulírott, UBIQUITI NETWORKS nyilatkozom, hogy a

Magyar UBIOUITI NETWORKS device, megfelel a vonatkozó alapvető [Hungarian] követelményeknek és az 1999/5/EC iránvely egyéb előírásainak. Íslenska Hér me I sir UBIOUITI NETWORKS vfir ví a UBIOUITI NETWORKS

device, er í samræmi vi grunnkröfur og a rar kröfur, sem ger ar eru í [Icelandic] tilskipun 1999/5/EC.

Italiano Con la presente UBIQUITI NETWORKS dichiara che questo UBIQUITI [Italian] NETWORKS device, è conforme ai requisiti essenziali ed alle altre

NETWORKS device, è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Latviski Ar o UBIQUITI NETWORKS deklar, ka UBIQUITI NETWORKS device,
[Latvian] atbilst Direkt vas 1999/5/EK b tiskaj m pras b m un citiem ar to saist
taliem noteikuniem.

Lietuviškai UBIQUITI NETWORKS deklaruoja, kad šis UBIQUITI NETWORKS [Lithuanian] irenginys atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

Malti Hawnhekk, UBIQUITI NETWORKS, jiddikjara li dan UBIQUITI [Maltese] NETWORKS device, jikkonforma mal-ti jijet essenzjali u ma provvedimenti o rajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

Norsk UBIQUITI NETWORKS erklærer herved at utstyret UBIQUITI [Norwegian] NETWORKS device, er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

Slovensky UBIQUITI NETWORKS t mto vyhlasuje, e UBIQUITI NETWORKS device, sp a základné po iadavky a v etky príslu né ustanovenia

[Slovak] device, sp a základné po iadavky a v etky príslu né ustanovenia Smernice 1999/5/E5. Svenska Härmed intygar UBIQUITI NETWORKS att denna UBIQUITI

[Swedish] NETWORKS device, står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/S/EG.

Español Por medio de la presente UBIOUITI NETWORKS declara que el

Español Por medio de la presente UBIQUITI NETWORKS declara que el [Spanish] UBIQUITI NETWORKS device, cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CF.

Polski Niniejszym, firma UBIQUITI NETWORKS o wiadcza, e produkt serii (Polish) UBIQUITI NETWORKS device, spełnia zasadnicze wymagania i inne istotne postanowienia Dyrektywy 1999/5/EC.

Português UBIQUITI NETWORKS declara que este UBIQUITI NETWORKS device, [Portuguese] está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

Română Prin prezenta, UBIQUITI NETWORKS declară că acest dispozitiv
UBIQUITI NETWORKS este în conformitate cu cerințele esențiale și
alte prevederi relevante ale Directivei 1999/5/CE.

#### Online Resources

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